

REMARKS

Claims 1-26 are pending. By the Present Amendment, Claims 1, 6, 13, 15 and 23 are amended, thereby leaving Claims 2-5, 7-12, 14, 16-22 and 24-26 unchanged.

Claim Objections

The Examiner objected to Claims 6 and 15 for including minor informalities. Claims 6 and 15 have been amended in a manner similar to that suggested by the Examiner. Accordingly, Applicants respectfully request withdrawal of the objections to Claims 6 and 15.

Rejections Under 35 U.S.C. § 112

Claims 1-11 and 13-15 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 13, and 23 have been amended to provide proper antecedent basis for “the body axis”. Reconsideration of the rejections is respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-10, 12-21 and 23-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,364,033 (“Hung”) and U.S. Patent No. 4,522,270 (“Kishi”). Claims 1, 11-12 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,028,890 (“Atkinson”) in view of Hung and Kishi. Reconsideration of the rejections is respectfully requested.

To establish a *prima facie* case of obviousness, three basic criteria must be met.

M.P.E.P. §§ 706.02(j) and 2143.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art, not in applicants' disclosure.

Independent Claim 1 and dependent Claims 2-11

Claim 1 defines a power tool comprising a body housing a motor and a drive mechanism driven by the motor and providing a first grip surface, the body having a rearward end and defining a body axis, and a hand grip connected to the rearward end of the body, the hand grip providing a second grip surface and being supported for movement relative to the body between a first position, in which the first grip surface and the second grip surface are generally aligned, a second position, in which the second grip surface defines an obtuse angle with respect to the body axis, and a third position, in which the second grip surface is generally perpendicular to the first grip surface.

35 U.S.C. § 103(a) provides that “[a] patent may not be obtained... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” In this case, the present application is a continuation-in-part of prior-filed, co-pending U.S. Patent Application Serial No. 09/704,914 (the “‘914 Application”), filed November 2, 2000. Applicants note that Hung was filed August 27, 2001, which is more than nine months after the filing date of the ‘914 Application, to which the present application claims priority. Applicants also note that the subject matter of Claims 1-11 is disclosed in the ‘914 Application. Accordingly, Hung does not qualify as prior art, and Applicants respectfully submit that it is therefore improper to reject Claims 1-11 in view of Hung.

Kishi does not teach or suggest a power tool including, among other things, a hand grip supported for movement relative to the body between a first position, in which the first grip surface and the second grip surface are generally aligned, a second position, in which the second grip surface defines an obtuse angle with respect to the body axis, and a third position, in which the second grip surface is generally perpendicular to the first grip surface. Rather, the screwdriver of Kishi is movable between a first position (shown in Figs. 1 and 6b), in which the housing 1 is oriented at an angle of about 90 degrees with respect to a grip 2, and a second position (shown in Figs. 2-3 and 6a), in which the housing 1 is generally aligned with the grip 2 along a longitudinal axis. More specifically, “the grip 2 is limited to swing about the pivot axis relative to the housing 1 between such straight and angled positions.” Column 3, lines 64-66. For these and other reasons, Kishi does not teach or suggest the subject matter of Claim 1.

Atkinson does not cure the deficiencies of Kishi. Atkinson does not teach or suggest a power tool including, among other things, a hand grip supported for movement relative to the body between a first position, in which the first grip surface and the second grip surface are generally aligned, a second position, in which the second grip surface defines an obtuse angle with respect to the body axis, and a third position, in which the second grip surface is generally perpendicular to the first grip surface. Rather, in the sabre saw 10 of Atkinson, the handle 13 is fixed to the motor housing 11 and is not movably connected to the motor housing 11. Moreover, in Figs. 1-3 of Atkinson, it appears that the handle 13 is fixed to the motor housing 11 at three points – at the top and at the bottom of the motor housing 11 and at a point intermediate to the top and bottom. For these and other reasons, Atkinson does not teach or suggest the subject matter defined by Claim 1.

Further, there is no teaching or suggestion in Atkinson or Kishi that the teachings of these references should be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

As illustrated in Atkinson and Kishi and as explained below, there are significant differences between reciprocating saws and screwdrivers, and these differences present significantly different design considerations, making the suggested combination of the teachings of Atkinson and Kishi inappropriate.

As a starting point, reciprocating saws and screwdrivers are designed for entirely different construction operations, requiring significantly different design considerations. Screwdrivers are generally used to tighten and loosen screws and other threaded fasteners.

Conversely, a reciprocating saw is generally intended for demolition operations. For example, as discussed in Atkinson, conventional reciprocating saws are used for a variety of sawing operations including cutting wallboard, siding or floor baseboards. Atkinson, Column 1, lines 18-21. In other cutting applications, reciprocating saws are used to cut metal, wood with embedded nails, etc. To withstand these demolition operations, reciprocating saws must have a sturdy and durable design and construction.

Second, the motion imparted by the respective drive mechanisms of the screwdriver and the reciprocating saw affect the design and construction of each tool. Both screwdrivers and reciprocating saws are typically powered by an electric motor having a rotary output. In the screwdriver, the rotary motion of the motor output is transmitted as rotary motion to the spindle

(and to the associated tool element, such as a screwdriver bit). Accordingly, as shown in Kishi, the drive mechanism (the gear train drivingly connecting the motor 5 to the spindle 9) is relatively simple. The elements of the gear train (the sun gears 41 and 45, the planet gears 43 and 46 and the planet carriers 44 and 47) all rotate about parallel axes.

In comparison, the saw drive mechanism converts the rotary motion of the motor output to reciprocating motion of the spindle (and of the saw blade). As a result, the drive mechanism of the reciprocating saw is more complex. Examples of such saw drive mechanisms include wobble plate drive mechanisms, scotch-yoke drive mechanisms, etc.

In addition, because of, in part, the differences between the drive mechanisms, the respective housings of the screwdriver and the reciprocating saw experience significantly different forces. As discussed above, in the screwdriver disclosed in Kishi, the elements of the gear train all rotate about parallel axes. In addition, the output of the motor 5, the spindle 9 and the associated tool element also rotate about parallel axes. Accordingly, the housing of the screwdriver experiences only the forces of these rotary motions.

In contrast, in a reciprocating saw, the motor output rotates about an axis, and the spindle reciprocates along another axis. In between, the drive mechanism converts the rotating motion of the motor output to the reciprocating motion of the spindle. The housing of the reciprocating saw experiences the combination of the forces of the different motions of the motor output, the spindle and the drive mechanism.

The difference between the motion imparted to the screwdriver bit or to the reciprocating saw blade is magnified when the bit or blade binds on the workpiece. The affect of such binding on the screwdriver or reciprocating saw (and on the operator) is also significantly different. In the screwdriver disclosed in Kishi, any binding will cause motion about the axis of the spindle 9, an axis which is parallel to the axes of the elements of the gear train and of the output of the motor 5. In the reciprocating saw, any binding will transmit force along the axis of the reciprocating spindle toward or away from the operator, contrary to the rotary motion of the motor output and contrary to the converting motion of the drive mechanism.

Applicants respectfully submit that the above-described and other significant differences between the design and construction of screwdrivers and of reciprocating saws provide reasons why one of ordinary skill in the art would not modify the sabre saw 10 disclosed by Atkinson to include a pivoting handle, such as the pivoting grip 2 disclosed by Kishi.

Atkinson actually appears to teach away from the modification suggested by the Examiner. As discussed above, in the sabre saw 10 of Atkinson, the handle 13 is fixed to the motor housing 11 and is not movably connected to the motor housing 11. Further, in Figs. 1-3 of Atkinson, it appears that the handle 13 is fixed to the motor housing 11 at three points – at the top and at the bottom of the handle 13 and at a point intermediate to the top and bottom of the handle 13.

With the proposed modification of Atkinson, a pivoting handle would be connected to the motor housing 11 at only one point and, therefore, would not be as securely mounted to the motor housing 11. With the less rigid connection of a pivoting handle to the motor housing 11, the sabre saw 10 of Atkinson may not be able to withstand demolition operations which is, generally, the intended use of a reciprocating saw. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d at 902, 221 U.S.P.Q. at 1127.

Also, Atkinson addresses the problem of making a “flush-to” cut which, because of the inherent geometry of prior art saws described in Atkinson and of the Atkinson sabre saw 10, is difficult because a part of the saw, such as the shoe 14 or the handle 13 (or both), will contact the floor or surface before of the completion of the “flush-to” cut. To solve this problem of a portion of the sabre saw 10, such as the handle 13, being in the way of cutting operations, the blade 15 is positioned, as shown in Fig. 4 of Atkinson, so that the cutting teeth are substantially parallel to or aligned with the side surfaces of the sabre saw 10, instead of tilting the sabre saw 10 to complete the “flush-to” cut.

The Examiner’s suggested modification of the sabre saw 10 disclosed by Atkinson to include a pivoting handle, such as the grip 2 disclosed by Kishi, would not solve the problem addressed by Atkinson. If the sabre saw 10 of Atkinson were modified so that the handle 13 was movable, other portions of the sabre saw 10, such as the shoe 14 and the side surfaces of the motor housing 11, would still contact the floor or surface before the completion of the “flush-to” cut. To complete the “flush-to” cut, the blade 15 would still have to be positioned, as shown in Fig. 4 of Atkinson, with the cutting teeth substantially parallel to or aligned with the side surfaces of the sabre saw 10, or the sabre saw 10 would have to be tilted in a plane which is perpendicular to the work.

For these and other reasons, Atkinson and Kishi do not teach or suggest the modification suggested by the Examiner and, in fact, the references teach away from such a combination. It is improper to combine references where the references teach away from such a combination. In re Grasselli, 713 F.2d at 743, 218 U.S.P.Q. at 779.

In summary, Hung does not qualify as prior art, and it is therefore improper to reject Claims 1-11 in view of Hung. Further, Atkinson and Kishi, alone or in combination, do not teach or suggest all of the claim limitations of independent Claim 1. Moreover, there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facia* case of obviousness of Claim 1 based upon the prior art as required by 35 U.S.C. § 103.

For these and other reasons, the prior art does not teach or suggest the subject matter defined by independent Claim 1. Accordingly, independent Claim 1 is allowable. Dependent Claims 2-11 depend from Claim 1 and are allowable for the same and other reasons.

Independent Claim 12 and dependent Claims 13-22

Claim 12 defines a power tool comprising a body housing a motor and a drive mechanism driven by the motor, the body having a rearward end, a hand grip connected to the rearward end of the body, the hand grip being supported for movement relative to the body, a locking mechanism for locking the hand grip in a position relative to the body, the locking mechanism having a locked condition, in which the locking mechanism prevents movement of the hand grip relative to the body, and an unlocked position, and an actuator supported on one of the body and the hand grip and operable to move the locking mechanism between the locked condition and the unlocked condition.

As mentioned above, the present application is a continuation-in-part of the '914 Application, which was filed November 2, 2000. As also mentioned above, Hung was filed August 27, 2001, which is more than nine months after the filing date of the '914 Application, to which the present application claims priority. Applicants note that the subject matter of Claims 12-22 is supported by the '914 Application. Accordingly, Hung does not qualify as prior art, and Applicants respectfully submit that it is therefore improper to reject Claims 12-22 in view of Hung.

Kishi does not teach or suggest a power tool including, among other things, an actuator supported on one of the body and the hand grip and operable to move the locking mechanism between the locked condition and the unlocked condition. Rather, the screwdriver of Kishi includes a cover 3 having a cutout 32 formed at a lower end which is engageable with a forward end of the grip 2 to retain the grip 2 and housing 1 in the inline orientation shown in Figs. 2-3 and 6a. The cover 3 of Kishi also includes a hook 34 which engages a node 28 projecting inwardly from the grip 2 to secure the grip 2 in the pivoted position with respect to the housing 1 as shown in Figs. 1 and 6b. For these and other reasons, Kishi does not teach or suggest the subject matter of Claim 12.

Atkinson does not teach or suggest a power tool including, among other things, a hand grip connected to the rearward end of the body, the hand grip being supported for movement relative to the body. Atkinson also does not teach or suggest a locking mechanism for locking the hand grip in a position relative to the body, the locking mechanism having a locked condition, in which the locking mechanism prevents movement of the hand grip relative to the body, and an unlocked position, and an actuator supported on one of the body and the hand grip and operable to move the locking mechanism between the locked condition and the unlocked condition. Rather, in the sabre saw 10 of Atkinson, the handle 13 is fixed to the motor housing 11 and is not movably connected to the motor housing 11. Moreover, in Figs. 1-3 of Atkinson, it appears that the handle 13 is fixed to the motor housing 11 at three points – at the top and at the bottom of the motor housing 11 and at a point intermediate to the top and bottom. For these and other reasons, Atkinson does not teach or suggest the subject matter defined by Claim 12.

Further, there is no teaching or suggestion in Atkinson or Kishi that the teachings of these references should or could be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

Rather than re-present the arguments set forth above with respect to this contention, for brevity's sake, Applicants refer to the discussion above for Claim 1. With respect to Claim 12, the same arguments apply to the lack of a suggestion in the references that the teachings of the references should or could be combined and to the contention that the references actually teach away from the combination suggested by the Examiner.

In summary, Hung does not qualify as prior art, and it is therefore improper to reject Claims 12-22 in view of Hung. Further, Atkinson and Kishi, alone or in combination, do not

teach or suggest all of the claim limitations of independent Claim 12. Moreover, there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facia* case of obviousness of Claim 12 based upon the prior art as required by 35 U.S.C. § 103.

For these and other reasons, the prior art does not teach or suggest the subject matter defined by independent Claim 12. Accordingly, independent Claim 12 is allowable. Dependent Claims 13-22 depend from Claim 12 and are allowable for the same and other reasons.

Independent Claim 23 and dependent Claims 24-26

Claim 23 defines a method of operating a power tool, the power tool including a body housing a motor and a drive mechanism driven by the motor and providing a first grip surface, the body having a rearward end and defining a body axis, and a hand grip connected to the rearward end of the body, the hand grip providing a second grip surface and being supported for movement relative to the body, the method comprising the acts of positioning the hand grip in a first position in which the first grip surface and the second grip surface are generally aligned, operating the power tool in the first position, moving the hand grip relative to the body to a second position in which the second grip surface defines an obtuse angle with respect to the body axis, operating the power tool in the second position, moving the hand grip relative to the body to a third position in which the second grip surface is generally perpendicular to the first grip surface, and operating the power tool in the third position.

As mentioned above, the present application is a continuation-in-part of the '914 Application, which was filed November 2, 2000. As also mentioned above, Hung was filed August 27, 2001, which is more than nine months after the filing date of the '914 Application. Applicants note that the subject matter of Claims 23-26 is supported by the '914 Application. Accordingly, Hung does not qualify as prior art, and Applicants respectfully submit that it is therefore improper to reject Claims 23-26 in view of Hung.

Kishi does not teach or suggest a method of operating a power including, among other things, the act of moving the hand grip relative to the body to a second position in which the second grip surface defines an obtuse angle with respect to the body axis. Rather, the screwdriver of Kishi is movable between a first position (shown in Figs. 1 and 6b), in which a

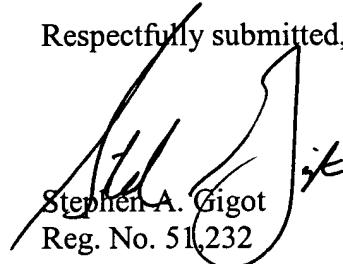
housing 1 is oriented at an angle of about 90 degrees with respect to a grip 2, and a second position (shown in Figs. 2 and 6a), in which the housing 1 is generally aligned with the grip 2 along a first longitudinal axis. For these and other reasons, Kishi does not teach or suggest the subject matter of Claim 23.

In summary, Hung does not qualify as prior art, and it is therefore improper to reject Claims 23-26 in view of Hung. Further, Kishi does not teach or suggest all of the claim limitations of independent Claim 23. Accordingly, independent Claim 23 is allowable. Dependent Claims 24-26 depend from Claim 23 and are allowable for the same and other reasons.

CONCLUSION

In view of the foregoing, entry of the present Amendment and allowance of the application are respectfully requested.

Respectfully submitted,



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